

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of claims in the application.

1. (Currently Amended) A system for assisting regeneration of a particle filter integrated in an exhaust line ~~[(3)]~~ of a motor vehicle diesel engine ~~[(1)]~~, the engine ~~[(1)]~~ being associated with various units, including:

- means ~~[(2)]~~ for admitting air into the engine;
- means ~~[(4)]~~ for recycling exhaust gases from the engine to the inlet thereof;
- a turbocompressor ~~[(5)]~~;
- a particle filter ~~[(7)]~~;
- a common system ~~[(8)]~~ for feeding fuel to the cylinders of the engine, including electrical fuel injectors ~~(9, 10, 11, 12)~~ associated with those cylinders;
- means ~~[(16)]~~ for adding to the fuel an additive adapted to be deposited on the particle filter ~~[(7)]~~ to reduce the combustion temperature of particles trapped therein;
- means ~~(20, 21, 22)~~ for acquiring information relating to various operating parameters of the engine and the units associated therewith; and
- means ~~[(17)]~~ for monitoring the operation of the air admission means, the recycling means, the turbocompressor and/or the fuel feeding system in order to monitor the operation of the engine, these monitoring means being further adapted to trigger a phase of regeneration of the particle filter ~~[(7)]~~ by combustion of the particles trapped therein by triggering a phase of

multiple injection of fuel into the cylinders of the engine during their expansion phase;

~~the system being characterized in that~~ wherein the particle filter ~~[[(7)]]~~ is impregnated with a catalyst for oxidizing hydrocarbons and CO present in the exhaust gases flowing through said particle filter.

2. (Currently Amended) A system according to claim 1, ~~characterized in that~~ wherein said catalyst is a metal or a mixture of metals.

3. (Currently Amended) A system according to claim 2, ~~characterized in that~~ wherein said metal is a group VIII metal, such as platinum, palladium, or rhodium, or a mixture of such metals.

4. (Currently Amended) A system according to ~~any one of claims~~ claim 1, wherein to 3, ~~characterized in that~~ the particle filter ~~[[(7)]]~~ has a region ~~[[(27)]]~~ that is more strongly impregnated with the oxidation catalyst.

5. (Currently Amended) A system according to claim 4, wherein ~~characterized in that~~ said more strongly impregnated region is situated at the centre of the cross-section of the particle filter ~~[[(7)]]~~.

6. (Currently Amended) A system according to claim 4, wherein ~~or claim 5, characterized in that~~ said more strongly impregnated region is situated at the inlet of the particle filter ~~[[(7)]]~~.

7. (Currently Amended) A system according to claim 5, wherein ~~or claim 6,~~ characterized ~~in that~~ the area of said more strongly impregnated region $[(27)]$ represents from 20% to 70% of the cross-section of said particle filter $[(7)]$.

8. (Currently Amended) A system according to ~~any one of claims~~ claim 4, wherein ~~to 7,~~ characterized ~~in that~~ the more strongly impregnated region $[(27)]$ occupies from 10% to 50% of the length of the particle filter $[(7)]$ starting from its inlet face $[(28)]$.

9. (Currently Amended) A system according to ~~any one of claims~~ claim 2, wherein ~~to 8,~~ characterized ~~in that~~ the terminal portion $[(31)]$ of the particle filter $[(7)]$ is not impregnated with the oxidation catalyst.